Applicant: James S. Norris et al. Attorney's Docket No.: 14017-004002 / PSU 96-1566

Serial No.: 10/082,973 Filed: February 26, 2002

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## Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

## Listing of Claims:

## 1-38. (Cancelled)

- 39. (New) A recombinant nucleic acid comprising a nucleotide sequence encoding an autocatalytically cleaving ribozyme and a trans-acting ribozyme, wherein said nucleotide sequence is operably linked to a tissue-specific promoter, wherein said autocatalytically cleaving ribozyme comprises a first arm of complementary sequence and a second arm of complementary sequence, wherein the cleavage site of said autocatalytically cleaving ribozyme is located between said first and second arms, and wherein the sum of the number of nucleotides of said first and second arms is 25 nucleotides or more.
- 40. (New) The recombinant nucleic acid of claim 39, wherein said nucleotide sequence encodes a pChop cassette.
- 41. (New) The recombinant nucleic acid of claim 39, wherein said nucleotide sequence encodes a pSnip cassette.
- 42. (New) The recombinant nucleic acid of claim 39, wherein said recombinant nucleic acid comprises an origin of replication.
- 43. (New) The recombinant nucleic acid of claim 39, wherein said recombinant nucleic acid encodes more than one trans-acting ribozyme.

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44. (New) The recombinant nucleic acid of claim 43, wherein the trans-acting ribozymes are targeted to different sites on the same target-RNA.

- 45. (New) The recombinant nucleic acid of claim 43, wherein the trans-acting ribozymes are targeted to different target-RNAs.
- 46. (New) The recombinant nucleic acid of claim 39, wherein said recombinant nucleic acid encodes more than one ribozyme cassette.
- 47. (New) The recombinant nucleic acid of claim 39, wherein said recombinant nucleic acid encodes at least two different ribozymes cassettes.
- 48. (New) The recombinant nucleic acid of claim 39, wherein said recombinant nucleic acid encodes more than one copy of a ribozyme cassette.
- 49. (New) The recombinant nucleic acid of claim 39, wherein said trans-acting ribozyme is targeted to a transcript selected from the group consisting of: pol II, HBV, pol III, RB, IGF1, SH, pol I, HPV, C3, C9, B2, Tel, TGFβ, CAT, PpaRα, p4501E1, AR, and SF1 transcripts.
- 50. (New) The recombinant nucleic acid of claim 39, wherein said nucleotide sequence encodes a hairpin loop.
- 51. (New) The recombinant nucleic acid of claim 39, wherein said nucleotide sequence encodes multiple ribozyme cassettes linked together by at least 4 nucleotides.
- 52. (New) The recombinant nucleic acid of claim 39, wherein said tissue-specific promoter is a K4 promoter, K7 promoter, K13 promoter or albumin promoter.
- 53. (New) A cell containing a recombinant nucleic acid comprising a nucleotide sequence encoding an autocatalytically cleaving ribozyme and a trans-acting ribozyme, wherein said

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nucleotide sequence is operably linked to a tissue-specific promoter, wherein said autocatalytically cleaving ribozyme comprises a first arm of complementary sequence and a second arm of complementary sequence, wherein the cleavage site of said autocatalytically cleaving ribozyme is located between said first and second arms, and wherein the sum of the number of nucleotides of said first and second arms is 25 nucleotides or more.

- 54. (New) A virion comprising a recombinant nucleic acid comprising a nucleotide sequence encoding an autocatalytically cleaving ribozyme and a trans-acting ribozyme, wherein said nucleotide sequence is operably linked to a tissue-specific promoter, wherein said autocatalytically cleaving ribozyme comprises a first arm of complementary sequence and a second arm of complementary sequence, wherein the cleavage site of said autocatalytically cleaving ribozyme is located between said first and second arms, and wherein the sum of the number of nucleotides of said first and second arms is 25 nucleotides or more.
- 55. (New) A liposome composition comprising a recombinant nucleic acid comprising a nucleotide sequence encoding an autocatalytically cleaving ribozyme and a trans-acting ribozyme, wherein said nucleotide sequence is operably linked to a tissue-specific promoter, wherein said autocatalytically cleaving ribozyme comprises a first arm of complementary sequence and a second arm of complementary sequence, wherein the cleavage site of said autocatalytically cleaving ribozyme is located between said first and second arms, and wherein the sum of the number of nucleotides of said first and second arms is 25 nucleotides or more.